

## **CLAIM AMENDMENTS:**

1. (previously presented) An apparatus for use in conducting chemical or biological reactions requiring the input of at least one fluid reagent and/or the output of at least one fluid product, the apparatus comprising a reaction chamber having an inlet for the supply of at least one reactant and an outlet for the recovery of at least one product, the reaction chamber being provided with a regulator comprising a propeller mounted in the inlet for dispersing the at least one reactant in the reaction chamber, wherein the propeller has a longitudinal shaft defining a rotation axis and at least one blade attached to the shaft by means of an elongated blade root, the propeller being tilted at an angle of from between  $0.5^{\circ}$  to  $60^{\circ}$  with respect to the longitudinal axis of the inlet.

2. (previously presented) An apparatus as claimed in claim 1, provided with at least one perforated element capable of allowing the passage of fluid material therethrough.

Claims 3-8 (canceled).

9. (previously presented) An apparatus according to claim 2, wherein the perforated element and/or the propeller is heated by a heating means.

Claims 10-12 (canceled).

13. (previously presented) An apparatus according to claim 9, wherein the propeller is connected to a power supply for driving the propeller.

14. (previously presented) An apparatus according to claim 1, wherein the propeller comprises a plurality of vanes in the shape of a semi-circle, an ellipse, a tear drop, a half tear drop, a bellcurve, a half bellcurve, a rectangle, a triangle and derivatives thereof.

Claims 15-31 (canceled).

32. (previously presented) An apparatus according to claim 2, wherein the propeller is mounted beneath the perforated element.

33. (previously presented) An apparatus according to claim 13, wherein the degree of heating and/or the speed is controllable by means of an electronic control unit associated with the apparatus.

34. (previously presented) An apparatus to regulate distribution of at least one fluid reagent and the output of at least one fluid product, the apparatus comprising a reaction chamber having an inlet for supply of the at least one fluid reagent and an outlet for recovery of the at least one fluid product, the reaction chamber being provided with a regulator comprising a propeller mounted in the inlet for the distribution of the at least one fluid reagent in the reaction chamber, the propeller having a longitudinal shaft defining a rotation axis and at least one blade attached to the shaft by an elongated blade root, the propeller being tilted at an angle of between 0.5° to 60° with respect to the axis of the inlet.

35. (currently amended) A process for conducting a chemical or biological reaction comprising the steps of providing the apparatus in accordance with claim 1 and supplying at least one fluid reagent to a the reaction chamber via a reactor the inlet-fitted with a regulator in accordance with claim 1.

Claims 36 and 37 (canceled).

38. (previously presented) An apparatus for use in conducting chemical or biological reactions requiring the input of at least one fluid reagent and/or the output of at least one fluid product, the apparatus comprising a reaction chamber having an inlet for the supply of at least one reactant and an outlet for the recovery of at least one product, the reaction chamber being provided with a regulator comprising a propeller mounted in the outlet for dispersing the at least one reactant in the reaction chamber, wherein the

propeller has a longitudinal shaft defining a rotation axis and at least one blade attached to the shaft by means of an elongated blade root, the propeller being tilted at an angle of from between  $0.5^{\circ}$  and  $60^{\circ}$  with respect to the longitudinal axis of the outlet.

39. (previously presented) An apparatus to regulate distribution of at least one fluid reagent and the output of at least one fluid product, the apparatus comprising a reaction chamber having an inlet for supply of the at least one fluid reagent and an outlet for recovery of the at least one fluid product, the reaction chamber being provided with a regulator comprising a propeller mounted in the outlet for the distribution of the at least one fluid reagent in the reaction chamber, the propeller having a longitudinal shaft defining a rotation axis and at least one blade attached to the shaft by an elongated blade root, the propeller being tilted at an angle of between  $0.5^{\circ}$  to  $60^{\circ}$  with respect to the axis of the outlet.